Application No. 10/551,150 Docket No.: 0641-0273PUS1

Amendment dated July 20, 2009 Reply to Office Action of March 20, 2009

AMENDMENTS TO THE CLAIMS

1-124. (Cancelled).

125. (Previously Presented) A method of comparing at least one chromosome or part

thereof from a cell with a first karyotype with the corresponding chromosome or part thereof

from a cell with a second karvotype, the method including the steps of:

randomly amplifying DNA from an isolated chromosome or part of an isolated

chromosome:

(a) randomly amplifying DNA from an isolated chromosome or part of an isolated

chromosome, the amplified DNA being depleted of repetitive sequences and/or sequences that

are over represented due to the random amplification;

(b) attaching the amplified DNA to a solid substrate:

(c) amplifying DNA from one or more cells with a first karyotype and amplifying DNA

from one or more cells with a second karyotype;

(d) labelling the amplified DNA from the one or more cells with a first karyotype with a

first label, and labelling the amplified DNA from the one or more cells with a second karyotype

with a second label, wherein the first and second labels are detectably different;

(e) hybridizing the amplified and labelled DNA from the one or more cells with a first

karyotype to the amplified DNA attached to the solid substrate, and hybridizing the amplified

and labelled DNA from the one or more cells with a second karyotype to the amplified DNA

attached to the solid substrate; and

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(f) comparing the relative amount of first and second labels hybridized to the amplified

DNA attached to the solid substrate.

126. (Currently Amended) A method according to The method of claim 125, wherein

the part of an isolated chromosome is a cloned fragment of a chromosome.

127. (Currently Amended) A method according to claims The method of claim 125 or

126, wherein the repetitive sequences include one or more repetitive sequences selected from the

group consisting of: Cot-1 sequences, simple repeated DNA, satellite repeats, mini-satellite

repeats, chromosome-specific repeats, micro-satellite repeats, repeated genes, sequences derived

from transposable elements, elements derived from multiple copies of viruses such as

retroviruses, repeats associated with centromeres or telomeres, and repeats associated with

heterochromatin.

128. (Currently Amended) A method according to The method of claim 125, wherein

the amplifying of DNA from one or more cells with a first karyotype and the amplifying of DNA

from one or more cells with a second karyotype is randomly primed amplification.

129. (Currently Amended) A method according to The method of claim 125, wherein

the amplified DNA from one or more cells with a first karyotype is DNA amplified from 1 to 20

cells.

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130. (Currently Amended) A method according to The method of claim 125, wherein

the one or more cells with a first karyotype is an embryonic cell, a foetal cell, a germ cell, a

cancerous cell, or a polar body.

131. (Currently Amended) A method according to The method of claim 125, wherein

the method is used to detect a chromosomal abnormality in a cell, for the pre-implantation

diagnosis of an embryo or an oocyte, for the prenatal diagnosis of a foetus for a chromosomal

abnormality, or for the determination of karyotype of a cancerous cell.

132. (Currently Amended) A method according to The method of claim 131, wherein

the chromosomal abnormality is selected from the group consisting of an extra or missing

individual chromosome, an extra or missing portion of a chromosome, a chromosomal break, a

chromosomal rearrangement, a translocation, a dicentric chromosome, an inversion, an insertion,

an amplification of a chromosomal region, a deletion, and a point mutation.

133-147. (Canceled).

148. (New) The method of claim 125, wherein the amplifying DNA from one or more

cells with a first karyotype and amplifying DNA from one or more cells with a second karyotype

includes randomly amplifying DNA from 100 or less cells with a first karyotype and randomly

amplifying DNA from one or more cells with a second karyotype.

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